(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 30 June 2005 (30.06.2005)

PCT

(10) International Publication Number WO 2005/058564 A2

(51) International Patent Classification7:

B27K

(21) International Application Number:

PCT/US2004/042096

(22) International Filing Date:

16 December 2004 (16.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/529,987

US 17 December 2003 (17.12.2003)

10/904,217

29 October 2004 (29.10.2004) US

- (71) Applicant (for all designated States except US): DAIKIN INDUSTRIES, LTD. [JP/JP]; Umeda Center Building, 4-12, Nakazaki-Nishi, 2-Chome, Kita-ku, Osaka-shi, Osaka 530-8323 (JP).
- (71) Applicant (for US only): SNOWDEN MOORE, Christopher [US/US]; 1627 Laurel Street, Wilmington, DE 19804 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): MURAKAMI, Shinji [JP/JP]; Yodogawa Works of Daikin Industries Ltd., 1-1, Nishihitotsuya, Settsu-shi, Osaka 566-8585 (JP).

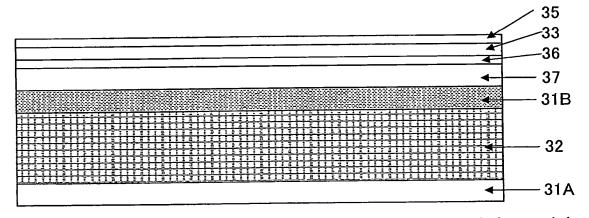
- (74) Agent: ROBERTS, Steven; Shinjyu Global IP, c/o Shinjyu Global IP Counselors, LLP, 1233 Twentieth Street, N.W., Suite 700, Washington, DC 20036 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FIRE-RETARDANT COMPOSITE MATERIAL



(57) Abstract: A fire-retardant composite structure which includes a balsa core layer, fiberglass reinforcing layers attached to either side of the core layer, a PTFE porous layer attached to one of the fiberglass layers or to a fiberglass veil, and a gel coat layer over the PTFE porous layer. Matrix resin bonds the fiberglass layers to the balsa core member, as well as the PTFE porous layer to the fiberglass layers by impregnation.